

NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD

PRESCRIBED FORESTRY

(Ac.)
CODE 409

DEFINITION

Manage forested areas for forest health, wood and/or fiber, water, recreation, aesthetics, wildlife habitat and plant biodiversity.

PURPOSE

- Maintain or improve forest health
- Protect soil quality and condition
- Maintain or enhance water quality and quantity
- Maintain or improve forest productivity
- Maintain or improve plant diversity
- Improve wildlife habitat
- Achieve or maintain a desired understory plant community for forest products, grazing, and browsing.

CONDITIONS WHERE PRACTICE APPLIES

- On all forest land
- On land capable and suited to growing trees.

CRITERIA

General Criteria Applicable to All Purposes

Activities to achieve the intended purpose(s) shall be based on a forest prescription that addresses the owner's objectives as well as perpetuating a sustainable forest ecosystem based on ecological parameters such as forest types, soil types, past harvest history, natural community types and successional trends.

A forest prescription that are elements of a more comprehensive conservation plan shall recognize other requirements of the

conservation plan and be compatible with its other requirements.

The prescription shall include an inventory of the existing forest condition and a description of desired forest condition using ecological site descriptions or equivalent plant community guides developed by other agencies.

The prescription shall be developed for a minimum management period of 10 years, and include a schedule of activities for that period.

Describe and give rationale for selection of silvicultural system including ecological, species, and economic considerations.

Planned activities shall be examined collectively. Coordinate and time activities to optimize the stated purposes of conservation practices. Collective activities are not limited to conservation practices.

Planned activities shall lead to a distribution of age classes appropriate to forest conditions, landowner objectives and local ecosystems. For some species, such as Lodgepole pine, an even-aged distribution would be desirable.

Additional Criteria to Protect Soil Quality and Condition

Develop written guidelines to protect the soil resource during and after harvest operations and site preparation for planting.

Control or prevent erosion. Soil loss will not exceed allowable average annual soil loss (T) as defined by current, approved erosion prediction technology.

Minimize impacts on landscape when placing roads, harvest trails and landings.

Seed disturbed areas for erosion and sediment control.

Maintain adequate cover to control soil erosion. Use proper grazing that will not adversely impact new seeding of erosion control species.

Prevent gully formation.

Avoid soil compaction during all activities occurring in the forest.

Additional Criteria to Maintain Water Quality and Quantity

Maintain or improve the quality and quantity of water flowing from and through forest lands.

Ensure road location, design, construction and maintenance, and vegetation reestablishment to reduce water pollution.

Use and maintain permanent vegetative filter strips or buffers to remove or reduce the transportation of sediment or organic matter into streams, lakes or other sensitive areas. Wyoming BMP's require a minimum 50 foot buffer in areas with 0-35% slope.

Develop written guidelines for stream crossings. Avoid altering stream courses and drainage patterns.

Assess and manage the impacts of forest activities on water quantities.

Additional Criteria to Maintain Forest Productivity

Sustainable harvest levels shall be based on one or more of the following:

- Clearly documented growth and regeneration data for the specific stand being managed
- Site index models
- Site productivity or culmination of mean annual increment (CMAI) growth
- Desired future condition or use
- Consideration of cyclical and natural disturbances.

Develop written guidelines for protecting the residual forest, including regeneration, during and following harvest operations.

Identify tree and shrub species to be retained. Select genetically superior, healthy trees for the residual stand.

Follow established guidelines for spacing, density, size class, number and amounts of trees and understory species to be retained.

Ensure spacing of residual trees is appropriate to their age, size, and species.

Identify pest problems, including insects, diseases, mammals and invasive/noxious plants, and develop management guidelines.

Additional Criteria to Maintain Plant Diversity

Assess current conditions including ecological processes such as disturbance regimes, unique natural communities such as old-growth, rare and imperiled plant species including those that are state or federally listed, and water and soil resources.

Develop written guidelines addressing the management of these special plant species and their communities.

Native plant species shall be inventoried and managed for vertical and horizontal structural complexity, and understory species diversity.

Vary the criteria according to state, federal or local requirements.

Additional Criteria to Improve Wildlife Habitat

Develop written guidelines to recognize and maintain forest resources for terrestrial and aquatic life.

Identify and develop specific management guidelines for habitat protection areas, including riparian buffers, critical habitats and those with special needs.

Coordinate forest and wildlife management objectives and activities.

Additional Criteria to Maintain a Desired Understory Plant Community for Forest Products, Grazing, and Browsing

Develop written guidelines for inventorying plants, monitoring plant populations and protecting the forest ecology while allowing the sustainable harvest of non-timber products.

Assess the impacts of timber production and harvest on the non-timber products.

Space trees properly to produce desired forage production, increase desirable woody plants for browsing, and provide conditions favorable for understory forest products.

CONSIDERATIONS

Consider adjacent and cumulative land use effects.

Consider aesthetic, recreational, and social effects of decisions.

Assess potential landowner and user liability in the development of specifications for this practice.

When possible, time ground-disturbing management activities during the frost season to minimize impacts on soil resources.

During initial road construction and other ground disturbing activities consider the use of temporary sediment control structures to prevent or minimize impacts on water quality.

PLANS AND SPECIFICATIONS

Plans and specifications shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose(s).

The following components shall be included in the forest management plan:

- Statement of landowner's goals and objectives
- Description of ecological and silvicultural systems and rationale for selection of silvicultural system
- Maps of forest and soil types
- Inventory of the existing forest condition and a description of desired forest condition.

- Location of roads, property boundaries, protected areas
- Schedule of planned management activities, including regeneration/harvest strategies and guidelines for addressing soil, water, air, plant, animal and human resource problems and concerns. They may or may not be conservation practices.
- Include written guidelines as required by any additional criteria for the identified purpose.

OPERATION AND MAINTENANCE

Maintain a yearly summary of forest management activities and records of yield for all forest products harvested, including non-timber resources.

Conduct periodic inspections and evaluations with landowner during and after treatment activities to ensure that the purposes are achieved and resource damage is minimized, e.g., post harvest inspection, assessment of insects, disease and other pests, storm damage, and damage by trespass. The results of the inspections shall determine the need for additional treatment under this practice.

Review timetables, schedules and coordination actions periodically and modify as needed.

REFERENCES

Forest Stewardship Council-U.S. 2001. U.S. Regional Standards.

(<http://www.fscstandards.org/>)

Silviculture Best Management Practices, Wyoming Dept of Environmental Quality, 2004.